

## Focus on: Puget Sound Water Quality Improvement



### Why it matters

Puget Sound water quality is degraded by excess nutrient pollution from the impacts of people living in the region. Ecology is working collaboratively with stakeholders in Puget Sound to address this complex issue.

### Contact information

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### Special accommodations

To request ADA accommodation including materials in a format for the visually impaired, call Ecology at 360-407-6600 or visit <https://ecology.wa.gov/accessibility>.

People with impaired hearing may call Washington Relay Service at 711. People with speech disability may call TTY at 877-833-6341.

### The problem with excess nutrients in Puget Sound

Ecology's latest science shows Puget Sound needs to go on a diet and that people are significant contributors to the problem. Having excess nutrients in the water causes low dissolved oxygen conditions that can lead to or intensify fish kill events, altering the marine food web in a way that prevents salmon and orca recovery.

As our region's population continues to grow, we need a plan that protects the natural resources that support our economy, our way of life, and our emotional and traditional connections to Puget Sound. We have to provide relief from the human pressures on the sound even as our population grows, so our aquatic species will be more resilient to the effects of climate change.

### Coordinating Nutrient Reduction Actions

Puget Sound recovery touches multiple levels of government, from cities and counties to tribes and state and federal agencies.

Washington's Department of Ecology is responsible for identifying polluted waters, developing plans to improve water quality, and ensuring those plans are implemented. Ecology is currently working with stakeholders and tribes to develop a Nutrient Reduction Plan for Puget Sound.

Ecology partnered with the Puget Sound Partnership to develop a Marine Water Quality Implementation Strategy to connect nutrient reduction actions with the Puget Sound Action Agenda.

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## Ecology's public process to inform the Puget Sound Nutrient Source Reduction Project

We created the **Puget Sound Nutrient Forum** in 2018 to provide a neutral space for information sharing, collaboration, and learning. The Forum includes representatives from regulated communities, tribes, agriculture, and advocacy groups. Coming together through meetings that are open to the public, the Forum aims to:

- Share, learn, and understand the extent of excess nutrients in Puget Sound
- Collaborate and discuss a range of issues for implementing nutrient reduction activities

In 2019, we will examine what other states have done to manage nutrients in similar coastal estuaries. We will also highlight current efforts in Puget Sound that are already working to reduce nutrients and develop new modeling questions to inform future actions.

## Puget Sound Action Agenda and Implementation Strategies

The Puget Sound Action Agenda is a list of regional priorities and activities that will reduce the stressors and problems needed to improve Puget Sound. In a parallel effort to the Forum, Ecology is leading the development of an implementation strategy to inform the Action Agenda and improve the marine water quality Vital Sign.

The marine water quality Vital Sign uses the same criteria as our state water quality standard for dissolved oxygen. The end goal is the same as Ecology's nutrient project - meet water quality standards, and the Marine Water Quality Implementation Strategy has other shared goals including:

- Defining the problem and causes of the problem
- Developing strategic solutions
- Identifying implementation priorities

## Using science and collaboration to find solutions

The information shared and built upon through these efforts is guided by the results of Ecology's Salish Sea modeling. The modeling will go through several phases to test the outcomes of different scenarios to reduce human sources of nutrients in Puget Sound. We completed the first phase in 2018 with our Bounding Scenarios Report. The second phase will start in 2019 and wrap up in 2021, identifying potential solutions to improve Puget Sound water quality and support salmon and orca recovery efforts.

2018 modeling results indicate a range of human nutrient source reductions in Puget Sound are needed, including wastewater and runoff from land use activities. Solutions will involve technological fixes and watershed restoration to reduce nutrients through actions like increasing stream channel complexity, reconnecting floodplains, and restoring and protecting riparian areas. These actions have multiple benefits for improving water quality and providing good habitat for aquatic and terrestrial species.

## For more information:

To learn more about the problem and this project, please visit:

<https://ecology.wa.gov/Water-Shorelines/Puget-Sound/Helping-Puget-Sound/Reducing-Puget-Sound-nutrients>